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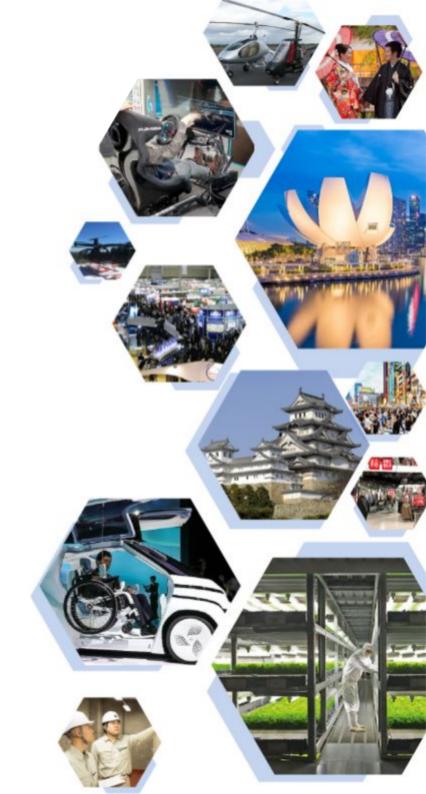


Introduction

Presented report is inspired by the book "The Future is Asian" by Dr. Parag Khanna. The book is a reflection of current world tendencies, the author supports the idea that there is no turning back from today's multipolar, multicivilizational order. Globalized world is too mixed to become national and closed again. Nevertheless, the outstandingly rapid development of Asian region might challenge the current state, turning the tables and shifting the center of gravity towards it.

Historically, Asia has grown stupendously from American and European outsourcing, and now the United States and Europe are being buttressed by infusions of Asian investment and talent. The author argues that we are only in the early phases of global Asianization; therefore we must continue to explore how the coming decades will transpire to be prepared to drastic changes in both geopolitical and economical situation across the world.

The report, therefore, includes the following parts: Technological, containing regional comparison by such criterias as digitalization and Al development, Economic and Socio Demographic, presenting socio-economical growth analysis, export and investment ratio, and presents a list of tables and graphics, being the visual representation of the current regions cooperation and interconnections.



Why Asia?

The economic zone of Asia - one that goes from Russia in the north to Australia in the south, and from the Arabian Peninsula and Turkey in the west to Japan and New Zealand in the east - currently represents half of global GDP and two-thirds of global economic growth. Only \$1 trillion out of assessed between 2015 and 2030 estimated \$30 trillion in middle-class consumption growth is expected to originate from the present Western economies. Most of the rest will come from Asia.

Asia is nowadays leading region, therefore creating, exporting, importing and consuming more goods than any other, and Asians mainly exchange and invest with each other, more than they do with Europe or North America. Asia has several of the world's largest economies, most of the world's foreign trade reserves, a significant number of the biggest banks, modern and innovation organizations, and most of the world's biggest armies. Asia likewise represents 60 percent of the world's population, having ten times as many people as Europe and twelve times as many people as North America. As the total population moves toward a level of around 10 billion people, Asia will everlastingly be home to more people than the remainder of the world combined. They are now speaking. Prepare to see the world from the Asian perspective.



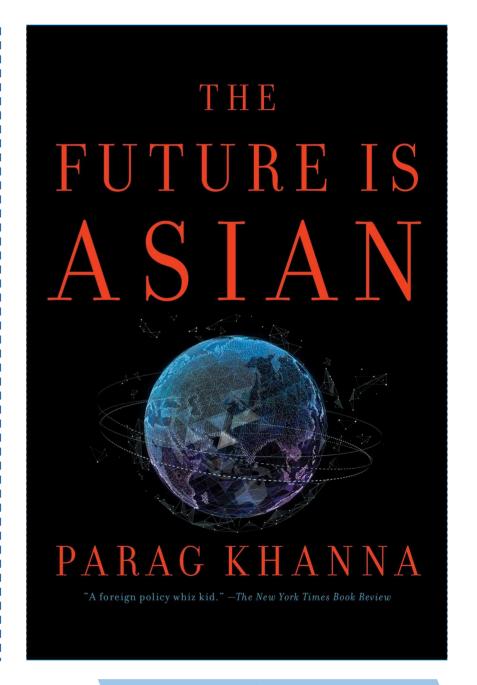
The Future is Asian

In the 19th century, the world was Europeanized. In the 20th century, it was Americanized. Now, in the 21st century, the world is being Asianized.

The "Asian Century" is even bigger than you think. Far greater than just China, the new Asian system taking shape is a multi-civilizational order spanning Saudi Arabia to Japan, Russia to Australia, Turkey to Indonesia—linking five billion people through trade, finance, infrastructure, and diplomatic networks.

There is no more important region of the world for us to better understand than Asia – and thus we cannot afford to keep getting Asia so wrong. Asia's complexity has led to common misdiagnoses: The region is experiencing a confident new wave of growth led by younger societies from India to the Philippines, nationalist leaders have put aside territorial disputes in favor of integration, and today's infrastructure investments are the platform for the next generation of digital innovation.

From investment portfolios and trade wars to Hollywood movies and university admission, no aspect of life is immune from Asianization. With America's tech sector dependent on Asian talent, politicians praising Asia's glittering cities and efficient governments. This will be the Asian century. Now we have an accurate picture of what it will look like.



About Parag Khanna

Parag Khanna is a leading global strategy advisor, world traveler, and best-selling author. He is Founder & Managing Partner of FutureMap, a data and scenario based strategic advisory firm. Parag's newest book is "The Future is Asian: Commerce, Conflict & Culture in the 21st Century" (2019).

He is author of a trilogy of books on the future of world order beginning with "The Second World: Empires and Influence in the New Global Order" (2008), followed by "How to Run the World: Charting a Course to the Next Renaissance" (2011), and concluding with "Connectography: Mapping the Future of Global Civilization" (2016). He is also author of "Technocracy in America: Rise of the Info-State" (2017) and co-author of "Hybrid Reality: Thriving in the Emerging Human-Technology Civilization" (2012). His books have been translated into more than twenty languages and have been largely recognized as the most progressive writings of their time.

Parag himself has been an adviser to the US National Intelligence Council's Global Trends 2030 program. From 2013 to 2018 he was a Senior Research Fellow in the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy at the National University of Singapore. From 2006 to 2015 he was a Senior Research Fellow at the New America Foundation. During 2007 he served in Iraq and Afghanistan as a senior geopolitical adviser to United States Special Operations Forces.



Socio-Economic Development

Asia is now home to the greater part of the world's population. Of the world's 30 largest cities, 21 are in Asia, according to UN data. By one year from now, Asia will likewise end up being home to half of the world's middle class, characterized as those, who live in households with every day per capita earnings being between \$10 and \$100 at 2005 purchasing power parity (PPP). Since 2007, Asians have been purchasing a greater number of autos and trucks than people in any other region — by around 2030 they will purchase the same number of vehicles as the rest of the world together.

"Now the continent finds itself at the centre of global economic activity,"Narendra Modi, prime minister of India, told during the last annual meeting
of the Asian Infrastructure Investment Bank. "In fact, we are now living
through what many have termed the Asian Century," he said. As the "Center
of gravity" shifts in geopolitics, Asia is believed to be the new driving force
for the world economy.

Ian Goldin, an Oxford University professor, has mentioned, that China alongside developing countries in Asia is at the bleeding edge of the economic growth. He have also told that he expects expansion in the world's second largest economy to stay "robust" at 6% for the following decade, while surrounding emerging markets will intently mirror that. "I think we're seeing a rebalancing, a historical rebalancing," said Goldin. "The center of gravity is clearly moving to Asia. This is a good thing. We'll have more global growth where it's needed, in developing countries."



Future is Asian Sources: Financial Times CNBC

Socio-Economic Development

Based on the presented charts the report shows the Socio-economic world tendencies, which in turn clearly represent global economic shift from West to Asia.

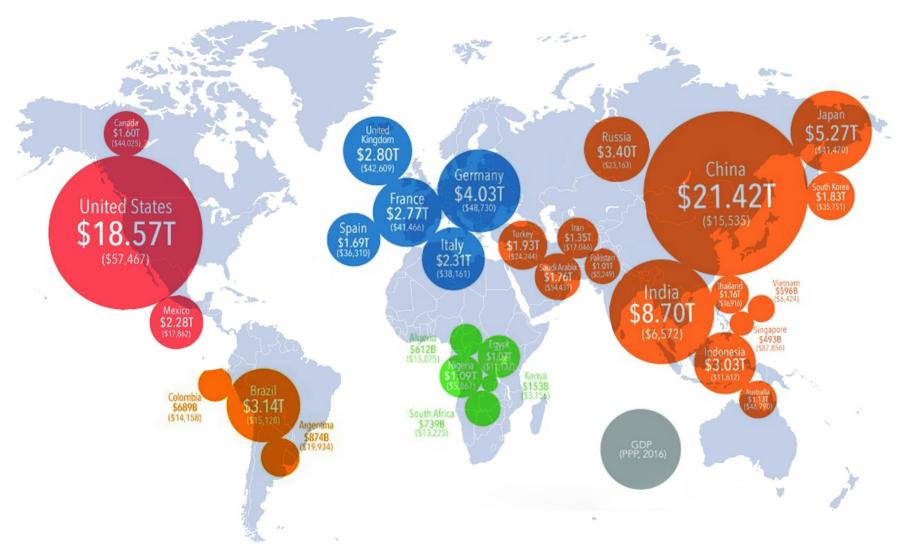
The most important chart is **GDP** (ppp, 2016), it clearly states that that Asia is dominating in economic value. Next two charts are **Export between the regions** (based on the 30 countries) and **Export within the regions**, which are clearly states that trading with the Asia is dominating in trading with other regions, and within its regions as well.

Sector composition is another important chart which shows the ratio within the economy of 30 countries. Next chart, presents Top 20 companies according to Forbes, that 7 companies out of 20 are from Asia, and the majority of these companies are related to financial institutions of China. Next, charts show info about the **Number of billionaires by regions** it also clearly states that Asia has the biggest amount of billionaires in the world.

It was decided to include some politics-related charts in this section. As can be seen, Asian countries are making a biggest part in **G20**. comparing to G7, which is predominantly western club, G20 represents regions more broadly. Another, chart is **Most powerful passports (number of destinations that can be access without a prior visa)** shows that even if the most powerful passport belongs to asian country, the amount of countries with strong passports are still in Europe.



GDP (Purchasing power parity, 2016)



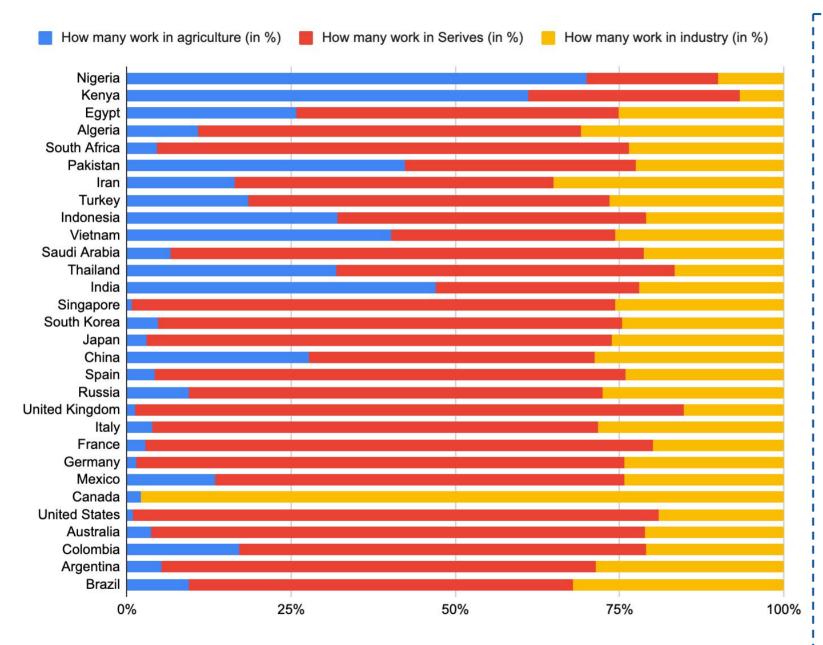
"Measured in PPP terms, China has already surpassed the United States as the world's largest economy, while Asia as a whole represents about half of global GDP. The more Asian economies trade with one another, the better able they are to maintain low prices for goods."

The Future is Asian p 9

Source:

The World Bank

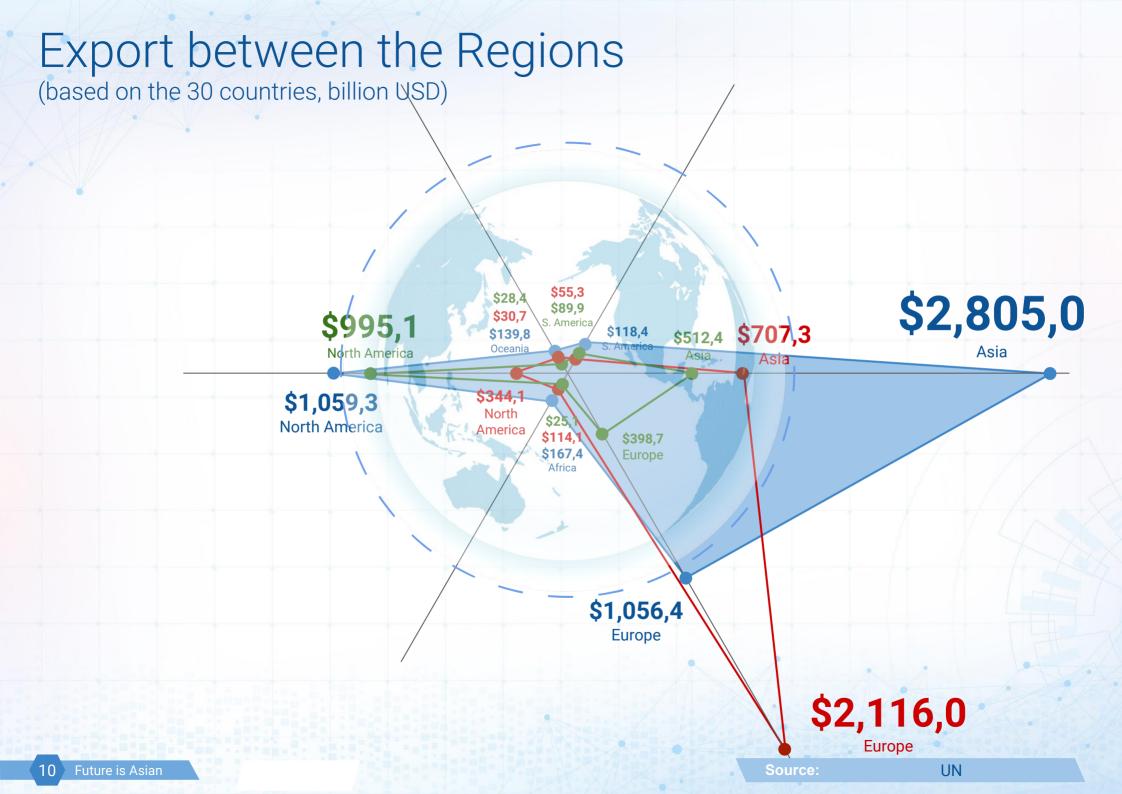
Agriculture vs Services vs Industry (in %)



The Nominal GDP sector composition is very demonstrative data.

In developed countries, that are advanced economies, the service sector, though classified as the third economic sector, contributes the most to GDP. They invest in information technology systems to improve the way businesses in the service sector operate.

developing countries, the **African** much continent and Asian countries, the first economic that sector, covers agricultural business activities in the economy, is dominated with emphasis on food-providing basic parts.



Export within the Regions (billion USD)

The graph shows the export within Asia is bigger than in the other regions. Despite political tensions in the region, the level of economic interconnections are very high in Asia.

Growing trade and investment linkages in Asia help improve the region's economic resilience to uncertainties in the global economic, trade environment.

Asia is leading a recovery in world trade that is helping the region to maintain growth strong momentum amid global economic turmoil. Asia's continued integration and cooperation will underpin regional economic growth and financial resilience.

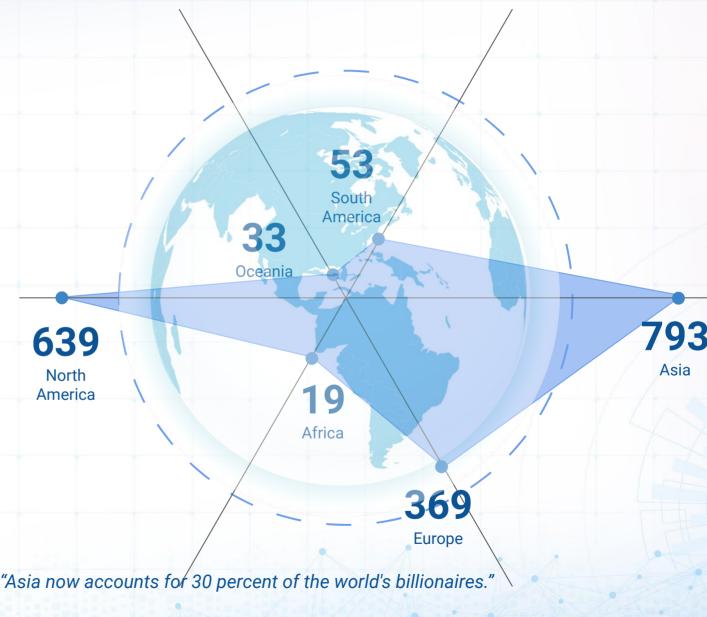


Future is Asian

Number of Billionaires by Regions

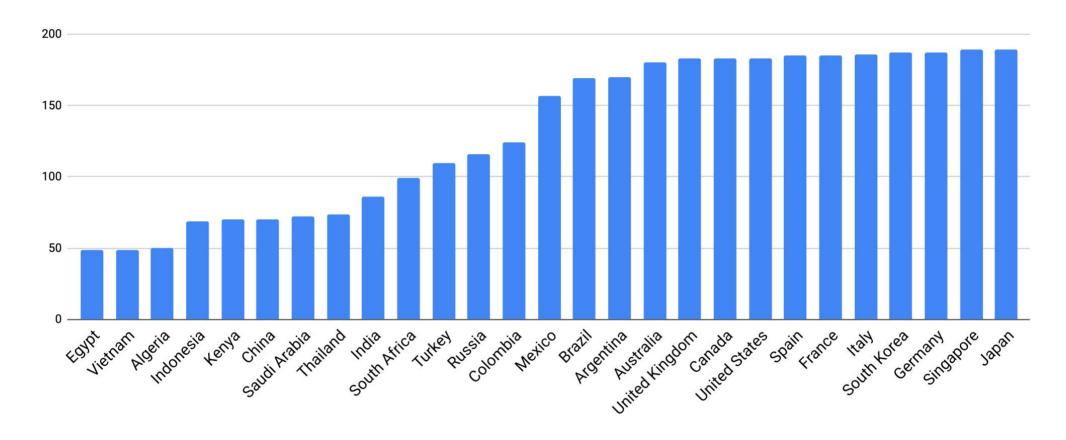
Being the most rapidly growing economic region, Asia became a place of residence to a large number of billionaires, such as Masayoshi Son, Mukesh Ambani, Jack Ma, Ma Huateng and others.

According to Knight Frank's Wealth Report this region is the largest club for wealthy men, with their number there is set to increase above 1,000 by 2023, accounting for more than a third of the global billionaire population of 2,696. Due to the latest data. India leads in of forecast UHNWI terms (Ultra-high net-worth individuals). It is expected to achieve a rise of 39% growth, followed by the Philippines (38%) and China (35%). Of the 59 countries and territories included in the wealth forecasts. eight top-ten states are from Asia.



Most Powerful Passports

(number of destinations that can be access without a prior visa)



"Asian businesspeople strut around the world as their passports gain more visa-free privileges. Singapore and Japan have overtaken Germany in Henley & Partners' "most powerful passports" index, South Korea also ranks ahead of most European nations, and Malaysia has nudged ahead of many European passports as well."

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R&D Spendings (in % of GDP)

R&D refers to innovative activities undertaken by corporations or governments in developing new services or products, or improving existing services or products. Research and development constitutes the first stage of development of a potential new service or the production process.

R&D expense (short for research and development expense) is essentially the amount of money that a company spends to develop new products and services each year.

R&D contributes to sustainability of business. Many companies do not understand the importance of R&D until it is too late. It is the R&D work that gives a stage to inventiveness and advancement to prosper in an association.

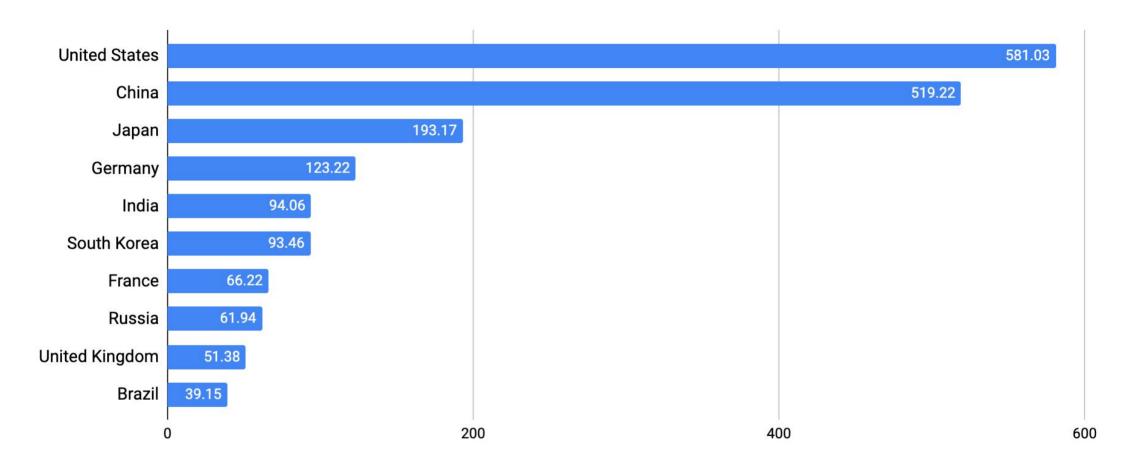
Research and development encourages a business to have a focused edge over its rivals. It is the R&D work that creates prepares different capacities. The R&D capacity needs to have a reasonable premonition about future issues that need arrangements. Research and development (in its improvement job) can go about as an impetus for accelerating the development of association by method for presenting leap forward items in the market.

Top countries by R&D spending worldwide 2019 is clearly states that 4 countries from Asia are making part of top-10 countries with the biggest R&D spendings. Therefore, Asia is the leading region in this financial aspect.



Top Countries by R&D Spending

Leading countries by gross R&D expenditure worldwide in 2018 (in billion USD)



"According to the World Intellectual Property Organization's Global Innovation Index, Singapore and South Korea are two of the most competitive economies in the world, owing considerably to their deployment of technology in the workplace and their upskilling programs. In 2017, Samsung overtook Intel as the world's largest semiconductor supplier and edged out IBM for the most patents filed. In 2021, South Korea will open the International Science Business Belt in Daejeon, a complex encompassing eighteen universities, science parks, research centers, and a heavy ion accelerator."

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Future is Asian

Investments

The first chart in this section shows **cross-border Merger & Acquisition activity**, which is a tactic used to rapidly expand to new markets on a global scale. During 2018, the United States was the leading acquiring country for cross-border M&A activity with over 4.7 thousand deals, accounting for almost 50 percent of the total cross-border deals made during 2018. The United Kingdom (UK) and France were the next largest acquiring nations with 775 and 448 deals respectively.

In opposite, the following graph demonstrates the Foreign Direct Investment (FDI) outpourings which is an interest as a controlling proprietorship in an organization in one nation, legitimately situated in another country.

The hint of the speculation doesn't impact the definition: the venture might be made either "inorganically" by purchasing an organization in the objective nation or "naturally" by growing the activities of current business in that nation.

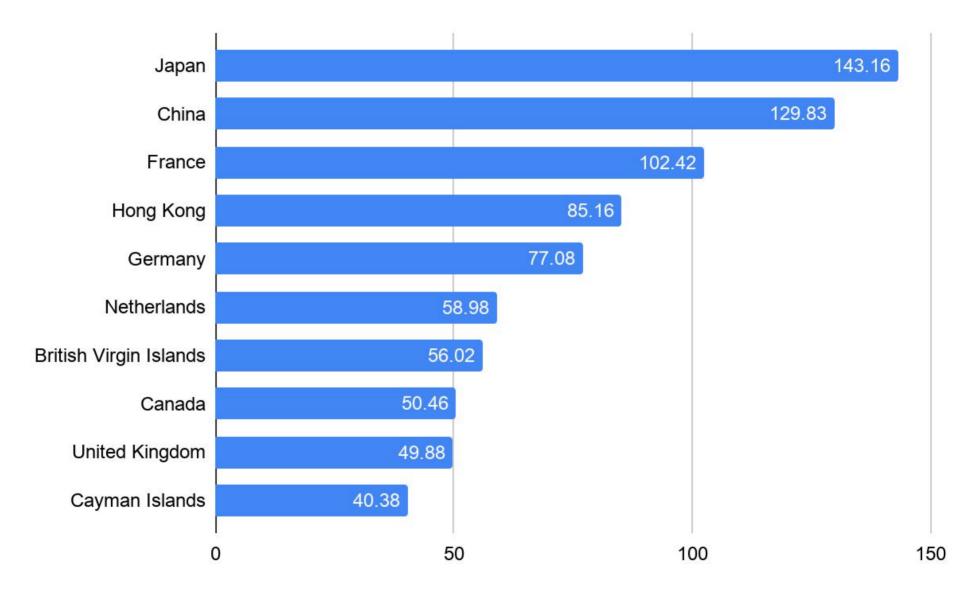
The chart shows that the first two palese belong to Asian countries. The difference between the two charts:

By definition, Foreign Direct Investment includes "mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations, and intra company loans. So, therefore, M&A activity is a detailed part of FDI, including only special types of contracts, when the whole FDI includes much more aspects.



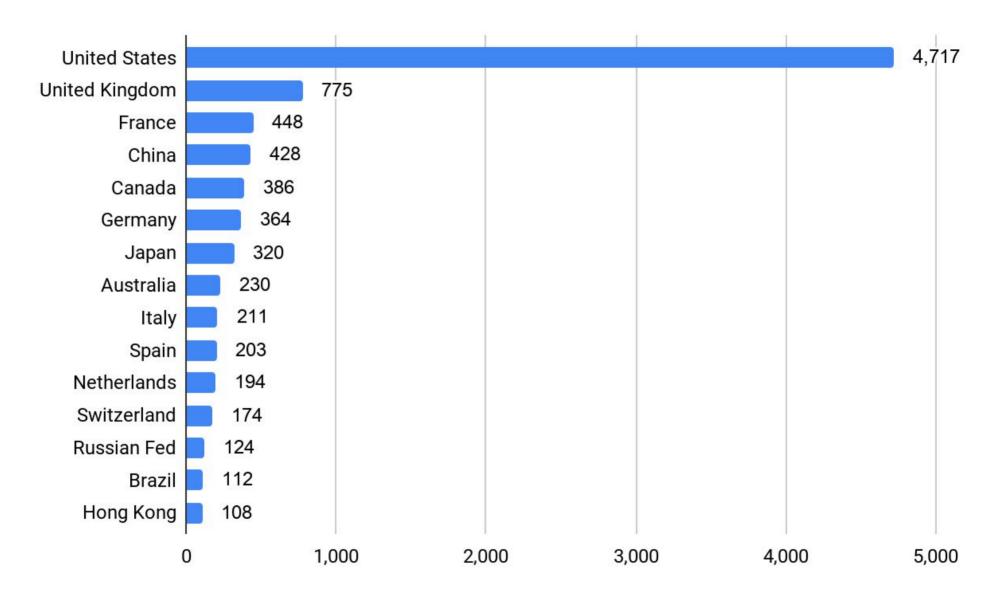
Foreign Direct Investment

(outflows in billion USD for selected countries in 2018)



M&A: Largest Acquiring Countries Worldwide

Number of deals for selected countries in 2018)



Industrial and Energetic Development

The hearth of the economy is industrial development. Three indicators were chosen to represent the volume of industrial and energetic resource development.

First, the leading consumer countries of machine tools 2018 undoubtedly shows that in 2018 accounted for approximately 29 percent of the world's machine tool consumption.

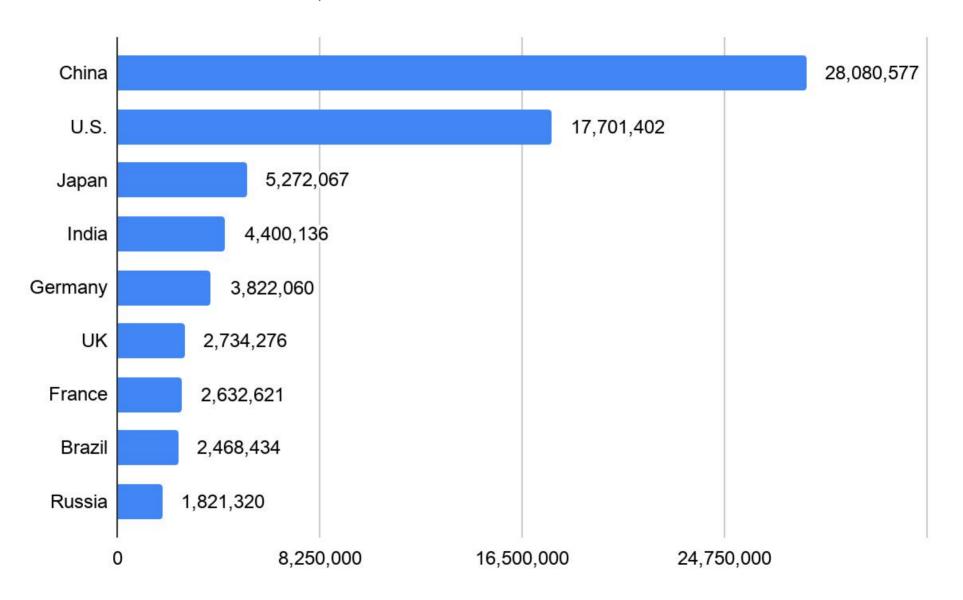
Second, vehicle sales in selected countries in 2018 (in units). Globally, China accounted for the largest number of light vehicle sales in 2018 with over 28 million vehicle sales. Due to the end of 2018 estimation, China has been the world's largest automobile market based on new car registrations. The US accounted for the second largest number of light vehicle sales in that year with approximately 17.2 million vehicle sales. There have been many alterations in the vehicle-building branch of industry in recent years and developing markets and technologies have influenced car sales in serious avenues.

To conclude, **Energy consumption share from renewable sources in 2018, by country** shows the vast stretches for progress in Asia. Definitely, despite advances in the sphere of high technologies, Asian nations predominantly rely on traditional sources of energy (petroleum, natural gases and so on).

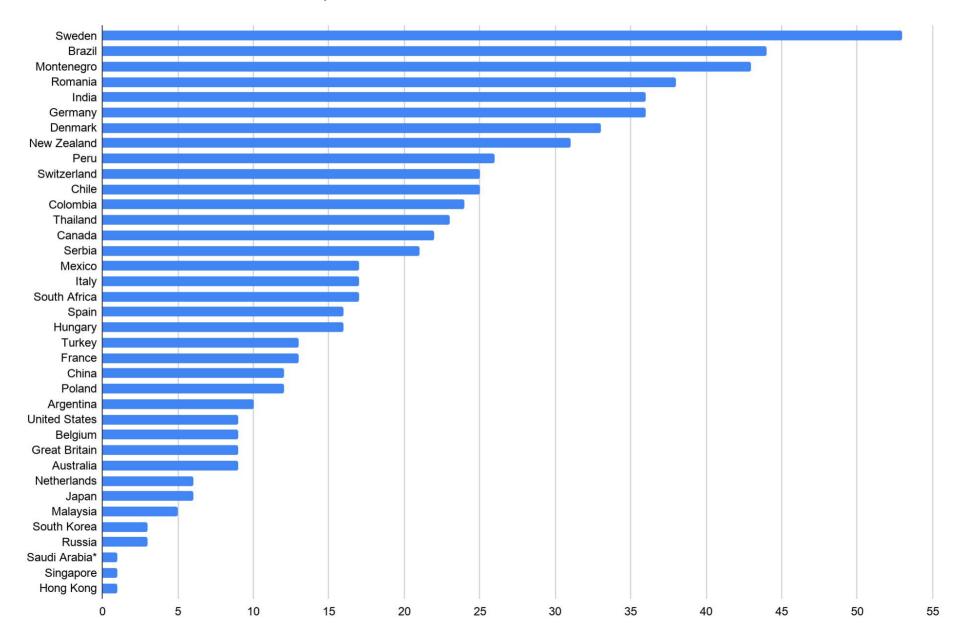


Vehicle Sales

(units in selected countries in 2018)



Energy Consumption (% from renewable sources in 2018)



Digital Development

"Data is the new oil" Clive Humby

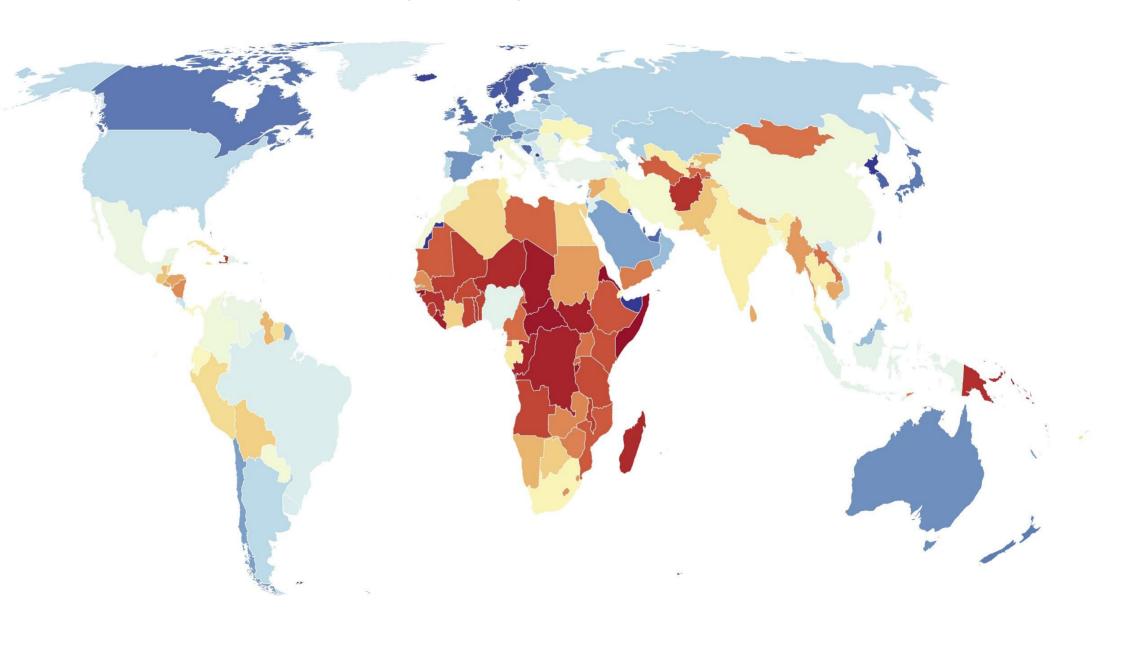
Three indicators were included in this section:

First, Internet users in %, one of the main exponents for the understanding of digital development. The percentage of internet users in the US and EU is much higher, however speaking about the number of internet users in China, the number of people is higher than in the US and EU combined. Moreover, if in the US and EU the Internet covered about all the population, the Asian market has a reserve for growth.

The second, **E-government Development Index** (2018) shows the governmental desire to introduce GovTech instruments in their communication between citizens(G2C), business(G2B) and between governmental bodies (G2G).

Finally, Number of mobile cellular telephone subscriptions is important because there is a clear tendency to service digitalization.

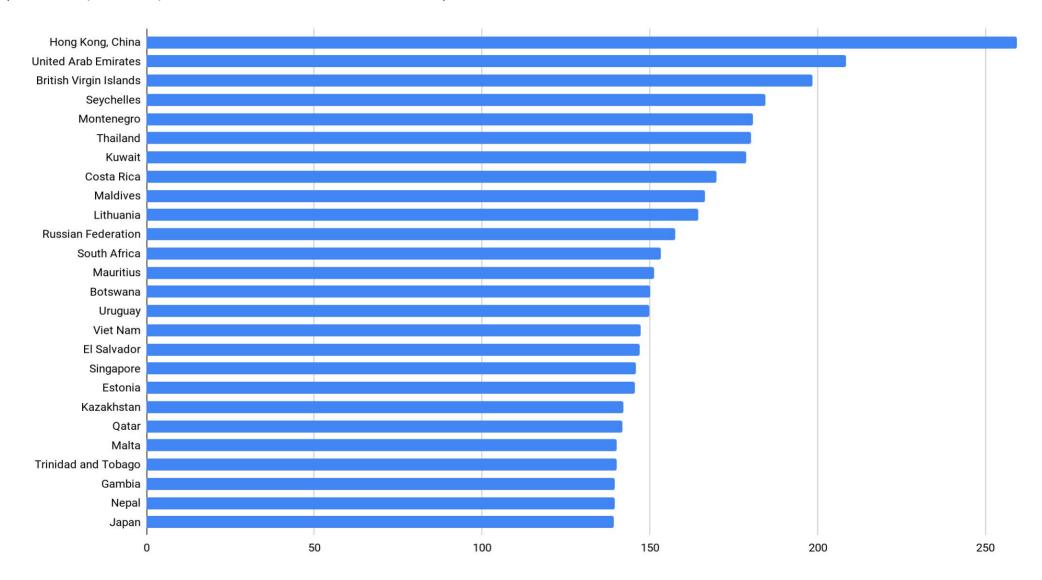
Internet users, % (2018)



23 Future is Asian Source: The World Bank

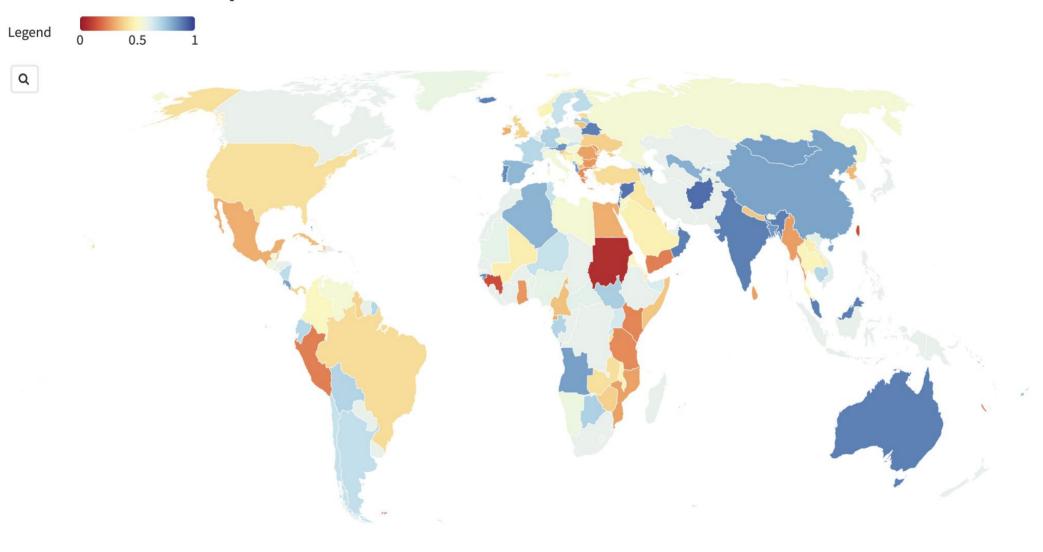
Number of Mobile Cellular Telephone

(subscriptions per 100 inhabitants in 2018)



E-government Development Index (2018)

E-Government Development Index



US vs China in the Al Race

The STEM workforce in China has also rapidly expanded. The total number of Chinese universities grew from 1,792 to 2,560 between 2005 and 2015. 8 million Chinese students graduated from college in 2017, compared to approximately 1.9 million graduating with bachelor's degrees and 1 million with associate's degrees in the United States. The number of science and engineering bachelor's degrees conferred in China increased from 359,000 in 2000 to 1.65 million in 2014.

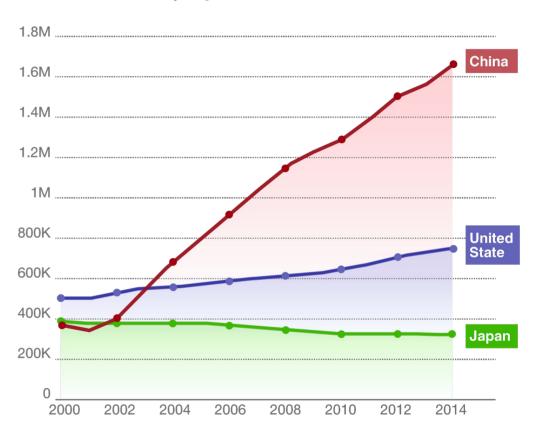
China surpassed the United States as the world's largest producer of natural sciences and engineering doctorates in 2007.

In addition, with ambitious science projects, generous salaries, and high levels of lab funding, China has made a concerted effort to recruit top foreign talent. The Thousand Talents Program offers scientists a one-million-yuan (\$151,000) starting bonus. Foreign scientists receive additional incentives, such as subsidies for accommodation, visits home, and education.

The Department of Energy recently warned that talent programs were offering scientists at U.S. national labs hundreds of thousands, and in some cases millions, of dollars to conduct research in China.

US and Chinese STEAM Graduates

First university degrees in STEAM in selected countries



US vs China in the Al Race

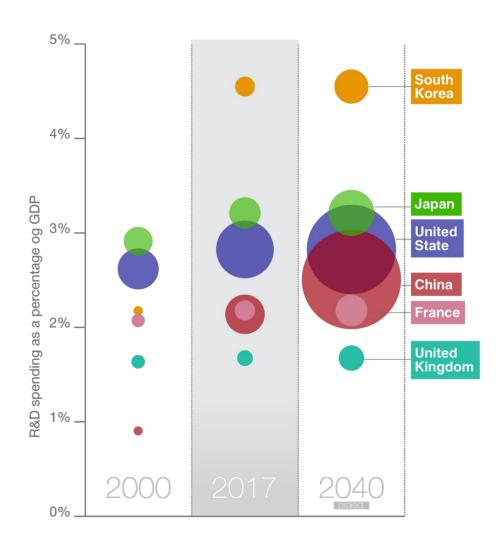
According to the report Innovation and National Security published by Council on Foreign Relations the United States leadership in science and technology is at risk.

China is investing significant resources in developing new technologies, and after 2030 it will likely be the world's largest spender on research and development. Although Beijing's efforts to become a scientific power could help drive global growth and prosperity, and both the United States and China have benefited from bilateral investment and trade, Chinese theft of intellectual property and its market-manipulating industrial policies threaten the United States economic competitiveness and national security.

China in particular has ambitious plans to become a world leader in science, technology, and medicine. Between 1991 and 2015, China increased its R&D expenditures thirtyfold, averaging an 18 percent increase annually since 2000.

R&D expenditures rose to \$254 billion in 2017, approximately 45 percent of U.S. R&D spending for that year. China's GDP is growing and China is dedicating a greater portion of its economic resources to R&D, planning to eventually reach a spending target of 2.5 percent of GDP. It will likely equal or exceed the United States in overall R&D expenditures after 2030.

Countries' R&D Spending



US vs China in the Al Race

China overtook the United States in the production of scientific papers in 2016. According to a study by scientific publisher Elsevier and business news outlet Nikkei, China published more high-impact research papers than the United States did in twenty-three out of thirty research fields with clear technological applications.

China's current five-year plan prescribes that the biotechnology sector should exceed 4 percent of GDP by 2020, and state, provincial, and local governments have invested more than \$100 billion in the life sciences sector. For example, BGI (The Beijing Genomic Institute) is by some measures the largest genome-sequencing center in the world.

On AI, Beijing hopes to leverage massive amounts of data, permissive regulations, entrepreneurial firms, and government support to build an industry worth \$150 billion by 2030. In 2017, China's AI industry received nearly \$26 billion in investment and financing. China surpassed the United States in volume of AI research in 2014, including in AI-related patent registration and articles on deep learning. China is also training a large number of specialists. 23 % of the accepted papers for the 2017 Association for the Advancement of Artificial Intelligence conference were from China, and AI authors in China were cited 44 % more in 2016 than they were in 2000.

Chinese University Rising in Artificial Intelligence Field

Universities ranked by publication in top Ai conferences Chinese universities are in red

2014

rankings

- **1** Carnegie Mellon University
- 2 Tsinghua University
- 3 Technion Israel Institute of Technology
- 4 Massachusetts Institute of Technology
- 5 University of Michigan
- 6 University of Toronto
- 7 University of Alberta
- 8 Ben-Gurion University
- 9 Cornell University
- Georgia Institute of Technology
- 11) University of Texas, Austin
- 12 University of Oxford
- University of Southern California
- 14 Stanford University
- University of California, Los Angeles

2018

rankings

- Carnegie Mellon University
- 2 Tsinghua University
- 3 Stanford University
- 4 University of California, Berkley
- **5** Peking University
- **6** University of Oxford
- Georgia Institute of Technology
- 8 University of Massachusetts, Amherst
- 9 ETH Zurich
- 10 Massachusetts Institute of Technology
- University of Texas, Austin
- 12 Chinese Academy of Sciences
- 13 Cornell University
- Nanjing University
- 15 Nanyang Technological University

Conclusions

The Report consists of the following chapters: Socio-Economic Development, Industrial and Energetic Development, Digital Development. The creation of each of these chapters involves analysing the vast amounts of data, however, the results are quite similar: Asia worth being recognized as the most prospective region in the world.

For example, socio-economic development includes such criteria as population, international trading, internal economy, etc. On the basis of the report's figures, one may be fully convinced, that Asian indicators are the best in the modern globalized society. The best export-import aspects and largest population - that is all about Asia.

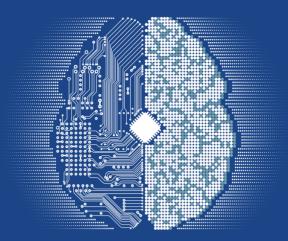
Speaking on industrial and energetic development, here Asia is leading too. It produces largest shares of the whole global production, as well as exploits vast numbers of vehicles and their tools. China, as the Asian leading state, has the world's largest figures demonstrating usage of vehicles per capita.

In energetic development, Asian countries seem to be conservative employing such traditional energy resources as petroleum, coal, natural gases, etc. In the digital sphere, Asian advances are quite impressive. Numerous investments in science and technology provided vast progress in branches of artificial intelligence and scientific research. According to the forecasts, in the next decade, Asia will be far ahead of other regions.

To sum up, Asia is the region to follow and to catch up with, is believed to be influencing economical and political fields even more significantly in the nearest future.







Link to the Report: www.govtech.dka.global/The-Future-is-Asian

E-mail: info@govtech.dka.global Website: www.govtech.dka.global

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